

Serial Number: 10/614,095  
Amendment Dated February 3, 2005  
Response to Office action of November 5, 2004

**Amendments to the Claims:**

This listing of claims will replace all prior versions, and listings, of claims in the application.

**Listing of Claims:**

1.(currently amended) A photothermographic material comprising, on one surface of a substrate, photosensitive silver halide grains, a non-photosensitive organic silver salt, a reducing agent and a binder, wherein said photosensitive silver halide grains include iridium and a metal of groups 3 to 10 of the periodic table other than iridium, and 90 % or more of a total iridium amount ~~within the grain~~ is contained in a core of 50 % or less of the grain, wherein the core of the grain corresponds to 50 % of the total mol% of silver halide in the grain.

2. (original) A photothermographic material according to claim 1, wherein said metal of groups 3 to 10 of the periodic table other than iridium is selected from the group consisting of ruthenium, iron, osmium, copper, cobalt, platinum, zinc and rhodium.

3. (original) A photothermographic material according to claim 1, wherein said metal of groups 3 to 10 of the periodic table other than iridium is iron or ruthenium.

4. (original) A photothermographic material according to claim 1, wherein said photosensitive silver halide grains have an average particle size of 10 to 50 nm.

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5. (original) A photothermographic material according to claim 1, wherein an amount of iridium in the silver halide grains is from  $1 \times 10^{-8}$  to  $1 \times 10^{-2}$  mol per 1 mol of silver halide.

6. (original) A photothermographic material according to claim 1, wherein an amount of the metal of groups 3 to 10 of the periodic table other than iridium in the silver halide grains is from  $1 \times 10^{-8}$  to  $1 \times 10^{-2}$  mol per 1 mole of silver halide.

7. (original) A photothermographic material according to claim 1, wherein the photosensitive silver halide grains are chemically sensitized by one of a sulfur sensitizing method, a selenium sensitizing method, and a tellurium sensitizing method.

8. (original) A photothermographic material according to claim 1, wherein the photosensitive silver halide grains are gold sensitized.

9. (original) A photothermographic material according to claim 1, wherein the photosensitive silver halide grains are reduction sensitized.

10. (original) A photothermographic material according to claim 1, further comprising a fragmentable electron donating sensitizer (FED sensitizer).

11. (original) A photothermographic material according to claim 1, wherein said photosensitive silver halide grains have a core/shell structure.

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12. (original) A photothermographic material according to claim 1, wherein the photosensitive silver halide grains have a core/shell structure of two to five layers.

13. (withdrawn) A method of producing photosensitive silver halide grains to be employed in a photothermographic material including, on a same surface of a substrate, photosensitive silver halide grains, a non-photosensitive organic silver salt, a reducing agent and a binder, wherein the photosensitive silver halide grains include iridium and a metal of groups 3 to 10 of the periodic table other than iridium, and 90 % or more of a total iridium amount is added by the time that an added amount of silver nitrate reaches 30 % of a total amount of silver nitrate.

14. (withdrawn) A method of producing photosensitive silver halide grains according to claim 13, wherein said metal of groups 3 to 10 of the periodic table other than iridium is selected from the group consisting of ruthenium, iron, osmium, and rhodium.

15. (withdrawn) A method of producing photosensitive silver halide grains according to claim 13, wherein said photosensitive silver halide grains have an average particle size of 10 to 50 nm.

16. (withdrawn) A method of producing photosensitive silver halide grains according to claim 13, wherein a compound of the iridium and a solution thereof are directly added to a reaction vessel for silver halide.

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17. (withdrawn) A method of producing photosensitive silver halide grains according to claim 13, wherein a compound of the metal other than iridium and a solution thereof are directly added to a reaction vessel for silver halide.

18. (withdrawn) A method for producing photosensitive silver halide grains according to claim 13, wherein the photosensitive silver halide grains have a core/shell structure.

19. (withdrawn) A method for producing photosensitive silver halide grains according to claim 18, wherein a core portion and a shell portion of the photosensitive silver halide grain are prepared from separate halogen solutions, and a compound of the iridium is added in advance to a halogen solution to be used for forming the core portion.

20. (withdrawn) A method for producing photosensitive silver halide grains according to claim 18, wherein a core portion and a shell portion of the photosensitive silver halide grain are prepared from separate halogen solutions, and the metal of groups 3 to 10 of the periodic table other than iridium is added in advance to a halogen solution to be used for forming the shell portion.